

## CLAIMS

1. In a print system, a method for adaptively controlling print options, the method comprising:
  - accepting an imaging job;
  - 5 determining the imaging job characteristics;
  - determining an imaging system's capabilities;
  - matching system capabilities to job characteristics; and,
  - performing the job on an imaging device.
- 10 2. The method of claim 1 wherein determining the imaging job characteristics includes determining job characteristics selected from the group including optimal print media, ink chemistry, and image processing.
- 15 3. The method of claim 1 wherein determining an imaging system's capabilities includes determining available print media, available inks, available image processes, and imaging device firmware.
- 20 4. The method of claim 3 wherein determining available print media includes an action selected from the group including enacting a user interface dialog with a user, reading print media identification of paper loaded in an imaging device, and accessing a memory of stored media data.
- 25 5. The method of claim 4 wherein enacting a user interface dialog includes accessing the dialog from a node selected from

the group including an imaging device front panel, a web page associated with an imaging device, and a client connected to an imaging device.

6. The method of claim 4 wherein determining available  
5 print media includes determining media characteristics selected from the group including media type, media weight, media brightness, tray number, and media name.

7. The method of claim 3 wherein determining available  
10 image processes includes determining an imaging device's resolution capabilities.

8. The method of claim 3 further comprising:  
storing the available print media information; and,  
15 determining the available print media for subsequent imaging jobs in response to accessing the stored print media information.

9. The method of claim 2 wherein determining the  
imaging job characteristics includes determining the imaging job  
20 characteristics in response to an action selected from the group including examining a print driver print stream to determine the file type, enacting a user interface dialog with the user, receiving pre-determined imaging job characteristics from a device driver embedded in a PRN image file, and receiving pre-determined imaging job characteristics from a device  
25 driver embedded in a job stream.

10. The method of claim 9 wherein enacting a user interface dialog with a user includes accessing the dialog from a node selected from the group including an imaging device front panel, a web page associated with an imaging device, and a client connected to an  
5 imaging device.

11. The method of claim 3 wherein determining an imaging system's capabilities includes determining the capabilities of a plurality of network-connected imaging devices;  
10 wherein matching imaging system capabilities to job characteristics includes matching the capabilities of plurality of network-connected imaging devices to the job characteristics; and,  
wherein performing the job on an imaging device includes performing the job of the imaging device whose capabilities best match the  
15 job characteristics.

12. The method of claim 1 wherein performing the job on an imaging device includes performing the job on an imaging device selected from the group including a printer, copier, fax, scanner, and  
20 multifunctional peripheral (MFP).

13. The method of claim 1 further comprising:  
automatically selecting the imaging device capabilities in response to matching of system capabilities to job characteristics; and,

wherein performing the job on an imaging device includes performing the job in response to the automatic selection of imaging system capabilities.

5           14.    The method of claim 1 further comprising:  
              establishing minimal match criteria; and,  
              following the matching of system capabilities to job  
characteristics, supplying a warning in response to detecting a match  
below the minimal match criteria.

10           15.    The method of claim 14 further comprising:  
              presenting a user with a user interface dialog for the  
selection of alternate imaging system capabilities in response to the  
warning.

15           16.    The method of claim 4 further comprising:  
              presenting a user with a user interface dialog for the  
selection of a means for determining the imaging system capabilities;  
and,

20           wherein determining an imaging system's capabilities  
includes determining capabilities in response to the selection means  
dialog.

17.    The method of claim 1 further comprising:

in response to matching of imaging system capabilities to job characteristics, presenting the match findings on a user interface to a user;

supplying a user interface dialog for the manual selection of  
5 imaging system capabilities; and,

wherein performing the job on an imaging device includes performing the job in response to the manual selection of imaging system capabilities.

10 18. The method of claim 1 wherein accepting an imaging job includes accepting an imaging job selected from the group including an electronic file and a hardcopy.

15 19. The method of claim 1 wherein performing the job on an imaging device includes performing a job selected from the group including printing and scanning.

20 20. An imaging device system for adaptively controlling print options, the system comprising:  
a controller having an interface to accept an imaging job, the controller determining imaging job characteristics and supplying selected capabilities at an interface in response to matching determined job characteristics to system capabilities; and

25 an output unit having an interface to accept the selected capabilities and to supply a job output responsive to the selected capabilities.

21. The system of claim 20 where the controller determines job characteristics selected from the group including optimal print media, ink chemistry, and image processing.

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22. The system of claim 20 wherein the controller determines capabilities selected from the group including available print media, available inks, available image processes, and imaging device hardware.

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23. The system of claim 22 further comprising:  
a user interface (UI) connected to the controller; and,  
wherein the controller determines available print media in response to enacting a user interface dialog with a user.

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24. The system of claim 22 further comprising:  
a reader having an interface for accepting print media and for supplying decoded print media identification to the controller; and,  
wherein the controller determines available print media to response to accepting the decoded print media identification from the reader.

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25. The system of claim 22 further comprising:  
a memory, including the stored identification of available print media, having an interface connected to the controller; and,

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wherein the controller determines available print media in response accessing the memory.

26. The system of claim 23 wherein the user interface  
5 resides at a front panel of the imaging device.

27. The system of claim 23 further comprising:  
a client, with a print driver, having an interface for sending  
imaging jobs to the print driver; and,  
10 wherein the UI resides with the client.

28. The system of claim 23 further comprising:  
a web page having an interface connected to controller, for  
sending available print media information in response to a UI dialog;  
15 and,  
wherein the UI has a connection to the web page.

29. The system of claim 22 wherein the controller  
determines media characteristics selected from the group including media  
20 type, media weight, media brightness, tray number, and media name.

30. The system of claim 22 wherein the controller  
determines the imaging device resolution capabilities.

31. The system of claim 27 wherein the controller determines the file type in response to examining the print driver print stream from the client.

5           32. The system of claim 21 further comprising:  
a user interface connected to controller; and,  
wherein the controller enacts a user interface dialog with the user to determine job characteristics.

10           33. The system of claim 32 wherein the user interface resides at a front panel of the imaging device.

          34. The system of claim 32 further comprising:  
a client, with a print driver, having an interface for sending  
15 imaging jobs to the controller; and,  
wherein the UI resides with the client.

          35. The system of claim 32 further comprising:  
a web page having an interface connected to controller for  
20 sending job characteristics information in response to a UI dialog; and,  
wherein the UI has a connection to the web page.

          36. The system of claim 22 further comprising:  
a plurality of network-connected imaging devices interfaced  
25 to the controller; and,



wherein the controller determines the capabilities of the plurality of network-connected imaging devices, matches the capabilities of the plurality of network-connected imaging devices to the job characteristics, and sends the job to the imaging device whose capabilities  
5 best match the job characteristics.

37. The system of claim 20 wherein the imaging device is an imaging device selected from the group including a printer, copier, fax, scanner, or multifunctional peripheral (MFP).  
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38. The system of claim 20 wherein the controller automatically selects the imaging device capabilities in response to the matching of system capabilities to job characteristics.

39. The system of claim 38 further comprising:  
a user interface (UI) connected to the controller; and,  
wherein the controller establishes minimal match criteria  
and supplies a warning, via the UI, in response to detecting a match below  
the minimal match criteria.  
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40. The system of claim 39 wherein the controller presents a user with an interface dialog for the selection of alternate imaging system capabilities, via the UI, in response to the warning.  
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41. The system of claim 22 further comprising:  
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a user interface (UI) having an interface to the controller;  
and,

wherein the controller presents a user interface dialog for the  
selection of a means for determining the imaging system capabilities, via  
5 the UI.

42. The system of claim 20 further comprising:  
a user interface (UI) having an interface to the controller;  
and,  
10 wherein the controller presents the findings of matching the  
system capabilities to job characteristics, via the UI, and supplies a user  
interface dialog for the manual selection of imaging system capabilities.